# **MASTER DEVELOPMENT PLAN**

Appendix B, Section 35-B101, Table B-1 specifications for documents to be submitted, © information required:

- 1. Major thoroughfare non-compliance
- 2. Projection of streets into unsubdivided property
- 3. Lack of collector streets
- 4. Improper number of access points
- 5. Incorrect information on existing adjoining property
- 6. Lack of topographic information
- 7. 100 floodplain information missing
- 8. TIA report not submitted/fee
- 9. Stormwater report not submitted
- 10. Tree report not submitted
- 11. Parks not addressed/fee

#### TRAFFIC IMPACT ANALYSIS

- 1. Proper right-of-way dedication is not identified as outlined on the Major Thoroughfare Plan (MTP). During Plat process, the submitted Plat is not in accordance with the MTP and/or the submitted Master Development Plan (MDP). Building plans are reviewed before Plat is approved; therefore, setbacks and building location may change due to previously approved MDP or plat.
- 2. Site plans must be provided, even if preliminary. Required during Zoning, MDP, Platting and Building Permit. UDC 35-B122.
- 3. Proposed access to the site is not to City standards. Addressed during MDP, Platting, Building Permit and sometimes Zoning; UDC 35-506(r), UDC 35-506(c) and UDC Table 506-7.
- 4. The TIA review fee is not provided at the time of submittal. Required during Zoning, MDP, Platting and Building Permit. UDC 35-C105.

- 5. Three copies of the TIA are not provided to the TIA section. Cursory review for TxDOT and COSA Public Works and/or Bexar County. Required prior to issuance of Letters of Certification. Ordinance #91700, Section 7(b)(1).
- 6. The site and area boundaries are not identified and not consistent with other land plans/submittals. Required during Zoning, MDP, Platting and Building Permit. UDC 35-502(a)(4).
- 7. Existing conditions of the adjacent roadways are not illustrated on TIA report map, nor referenced. Required during Zoning, MDP, Platting and Building Permit. UDC 35-B122.
- 8. TIA submittals for a Master Plan or zoning cases may not have the same name as the Plat or Building Permit. They must be cross-referenced.
- 9. Connectivity and shared access issues are overlooked. Required during Master Plan and Platting process. UDC 35-506(r).
- 10. Improvements for sub-standard streets are not identified. Required during Building Application. UDC 35-506(d)(9).

#### ENVIRONMENTAL

- Tree Preservation
- 1. Failure to submit an aerial photo with overlay of the development and basic non-committal information regarding the trees on site with a \$75 plan review fee; UDC 35-B101, Table B-1, Section 35-B125 and 35-C110.

#### SUBDIVISION STREETS

- 1. The construction documents do not adequately address varying roadbed soil conditions. The plans fail to stipulate the location of and the modified pavement design for soil transition areas. UDC 35-506(P)(5)
- 2. Wheelchair ramps are not individually designed and positioned based upon elevation change, curb radius, street intersection angle or stop sign location. UDC 35-506(o)(1)
- 3. Engineering documents generally do not indicate a clear vision easement on the plat or plans. The design of street intersections routinely omits the clear vision easement, resulting in a major loss of corner lot utilization. UDC 35-506(d)(5)
- 4. Most construction documents do not show the one-foot non-access easement required to prevent vehicular movement onto a roadway with high traffic volumes. UDC 35-506(e)(6)
- 5. Construction documents do not always take into account street types and intersection angles resulting in incorrect minimum radii for curb and property line returns. UDC 35-506(d)(2/3)
- 6. Street grades greater than the maximum and sight distance less than the minimum are common errors on construction documents. UDC 35-506(d)(1)

- 7. The minimum turning radius of fire trucks is frequently ignored during the design of intersections and the placement of traffic islands. UDC 35-506 Figure 505-1
- 8. Submittals routinely contain an excess of regulatory signs, a shortage of information signs and a general lack of detail on existing signage that could be adversely impacted by construction operations. UDC 35-506(h)(4)
- 9. The standard details almost always need corrections on such items as the requirement for Class A concrete, non-use of sand base under concrete structures, incorrect slopes/flares on driveways and incorrect base thickness under curbs.
- 10. Plans and plats are often missing standard dimensions such as intersection angles, curb/property line radii and full/half pavement notations.

#### SUBDIVISION DRAINAGE

- 1. Design Engineer doesn't supply enough information, i.e. where the water goes once it leaves their property and how it affects next door as well as 2000 ft downstream.
- 2. Runoff coefficients are not to be weighted unless the property has existing structures at the initial time of development: Must follow the UDC 35-504 Table 504-1(a) to obtain the appropriate runoff coefficient for their development.
- 3. Plat applications shall include final contour data to show site drainage of the site for the proposed subdivision. UDC 35-504(e)(2)
- 4. To verify that the drains, culverts, streets, etc., are designed for ultimate development, existing and proposed calculations for the 5, 25, and 100-year storms are required for all plats. UDC 35-504(b)(2)
- 5. A letter or note is required stating that there is no adverse impact to habitable structures 2000-ft. downstream of the development. It will be signed and sealed by the Engineer. This letter is required even if detention ponds are utilized, because the detention ponds must not adversely impact habitable structures.
- 6. Detailed construction plans for the detention ponds are required with several cross sections of the outfall and elevations throughout the structure. UDC 35-B119 (h)
- 7. A U.S.G.S. Quadrangle map is required showing the site and overall drainage areas, runoff coefficients, time of concentration, rainfall intensity and discharge quantities (Q's). UDC 35-B119 (h)
- 8. Where the drainage area behind platted lots exceeds the depth of two average residential lots, engineers are required to provide interceptor drainage channels and easements on the plat with appropriate construction plans.
- 9. Engineers are required to supply Hydraulic Grade Lines (HGL) and Energy Grade Lines (EGL) on the plan and profile sheets for any pressured pipe or culvert.

10. Engineers are required to put the "Drainage Note" on the plat when any drainage easements are required.

## **PLATTING**

- Land Development Services GIS:
  - The development community does not always submit a digital disk when the plat has been revised. The staff has to compare the recorded plat to the preliminary plat and manually modify the plat prior to posting to the GIS (Geographic Information System) parcel base. DSD recommends a second digital copy at the end of the process which includes all of the changes.
- Land Development Services Addressing:
  - 1. The development community often submits a plat for addressing without indicating which street the building(s) face or are accessed from, how many buildings will be on the site and whether they want building numbers, suite numbers, or individual addresses. They often also fail to provide a layout of the store showing the location of internal suite numbers.

#### Tree Preservation:

- □ Incorrect information on Tree Affidavit/Permit application form (i.e. using acreage for the residential fee which is calculated by number of lots, incorrect number of acres).
- Incorrect selection of type of tree permit option: Selecting option #1 states there are no trees of protected size on the site, but when the Environmental Review inspector visits the site, it is determined that there are protected trees. Different fees may apply.
- □ No aerial photo is submitted. UDC Section 35-124.
- Incorrect tree survey: There are trees shown on the plan that are no longer present. There are trees on the site that do not show up on the survey. Trees are incorrectly identified and/or incorrectly measured. This can be due to the tree survey being years old, which could be corrected before submittal if the responsible party would visit the tree site and verify information.
- Measurement of multi-trunk trees is an issue: Staff has developed a policy and implemented staff training to facilitate measurement of such trees in order to increase consistency between staff and applicant.
  - Streetscape Trees
- Compliance is required at the platting stage, but as an option. A note on the plat such as "Section 35-512 of the UDC will be complied with at the building stage." will suffice. UDC 35-512.
- □ Need streetscape plan and commitment to plant trees within a year for platting sites with existing buildings if there is no anticipation of new construction on the site.

- New residential subdivisions abutting existing arterial and collector streets need to plant streetscape trees along those streets.
- No Streetscape is included on the landscape plans submitted for a building permit due to disconnect between platting and building permit.

# **BUILDING PERMIT PLAN REVIEW**

#### LANDSCAPE REVIEW

- 1. Incomplete information on the landscape plan for showing all existing and proposed improvements. UDC 35-B107
- 2. Plan sheets do not match or are inconsistent especially between the civil, drainage and tree preservation sheets.
- 3. Streetscape is not on the landscape plan due to disconnect between plat and building permit.
- 4. Failure to allow for required landscape buffer for side yards abutting residential zoned areas and arterial and collector streets. UDC 35-510, Table 510-1.
- 5. Failure to meet parking lot shading requirement. UDC 35-511 (c)(7)
- 6. Parking lot shade calculations are incorrect, UDC 35-511(c)(7) and as amended by the 2003 Tree Preservation Ordinance.
- 7. Providing three copies on re-submittals/revisions for the two sets of plans and one for the Environmental Review inspector.
- 8. Applicants submitting for additions to existing parking lots or buildings do not want to plant new trees and shrubs due to increased maintenance, site limitations that includes limited space and often there is no existing pervious ground are available. This issue needs to be coordinated with sidewalks. If the sidewalk needs to be replaced, then the work can include accommodating trees versus providing above ground containerized planting areas.

#### Irrigation Review

- 1. Do not want to install irrigation or a separate irrigation meter especially for additions. UDC 35-511 (c)(6).
- 2. System is not designed to "Provide Separate Zoning". UDC 35-511(c)(6)(A)(2).
- 3. Sprinkler head spacing incorrect for area irrigating. UDC 35-511(c)(6)(A)(3).
- 4. Landscape water schedule missing from plan or incorrect. UDC 35-511(c)(6)(A)(4).

- 5. Required (local & state) rain sensor not shown/listed on plan. UDC 35-511(c)(6)(B)(1)(a).
- 6. Low head drainage not addressed. UDC 35-511(c)(6)(B)(3)(d).
- 7. Improper design, resulting in over throw of water onto streets, sidewalks and parking lots. UDC 35-511(c)(6)(B)(3)(c).
- 8. No letter of conformity submitted as required. UDC 35-B107 (d)(6).
- 9. No water schedule shown on irrigation plan. UDC 35-511(A)(4).

#### **Common Reasons for Fire Holds:**

- 1. Inadequate hose lay
- 2. Fire Flow report is missing
- 3. Inadequate fire hydrant coverage
- 4. Improper hazardous material storage
- 5. Lack of commodity letter
- 6. Improper storage of medical gas
- 7. Incomplete site plan for fire protection
- 8. Inadequate fire lane
- 9. Improper storage of flammable or combustible liquids
- 10. Inadequate roadways or access for fire trucks

#### Common Reasons for Mechanical Holds:

- 1. Inadequate access and service space
- 2. Combustible material in return air plenum
- 3. Lack of fire and smoke dampers when required
- 4. Duct insulation requirements inadequate
- 5. Using rated corridor as a return air plenum
- 6. Equipment not meeting the minimum energy efficiency ratio as required by IECC
- 7. Plans not sealed by engineer when required by state law
- 8. Lack of IECC compliance report
- 9. Dryer exhaust exceeds 14 ft. length limitation
- 10. Inadequate details to convey code compliance.

#### Common Reasons for Electrical Holds:

- 1. Plans submitted with no information.
- 2. Plans not sealed by engineer when required by state law or local ordinance
- 3. Disconnecting means for HVAC equipment does not comply
- 4. Lighting compliance certificate missing, not signed or plans do not match and lighting is not in compliance with the requirements of IECC
- 5. Multiple services to one building not in compliance with CPS standards
- 6. Location of service and panels is not indicated or is in a noncompliant location
- 7. Electrical equipment and feeders not in compliance with proposed load
- 8. Grounding electrode system is not in compliance
- 9. Load calculations one line diagram of feeders and panel schedules are missing or incorrect

10. Insufficient information regarding emergency systems to include fire pumps and generators.

## **Common Reasons for Building Holds:**

- 1. Property is not platted and recorded
- 2. Lack of complete site plan, clearly showing recognized platted lots
- 3. Plans not sealed by architect or engineer when required by state law or local ordinance
- 4. Rooms not labeled and lack of general design compliance
- 5. Type of construction is incompatible with occupancy group or size of building
- 6. Inadequate exiting system/ Life-Safety design compliance issues
- 7. Applications incomplete
- 8. Project details incomplete (i.e. lack of detail to indicate fire resistive construction, smoke and fire dampers not indicated)
- 9. Zoning violations
- 10. Lack of coordination between architectural plans and MEP and Civil plans

## **Common Reasons for Plumbing Holds:**

- 1. Undersized gas pipe
- 2. Not enough restrooms
- 3. Insufficient amount of toilets, urinals in restrooms
- 4. Combination waste/vent not properly sized, vented and properly installed per code
- 5. Grease interceptor undersized
- 6. Drainage risers not properly illustrated as per fixtures, sized drain trap, ventilation in approved manner
- 7. Plans submitted without proper layout of roof, overflow drains where parapet walls are involved
- 8. Plans not complete, lack of detail of work being done
- 9. Plan referred to wrong code/ use of incorrect codes or standards (not to date)
- 10. Sewer piping not correctly sloped as per the Uniform Plumbing Code

# **INSPECTIONS**

## Trade Inspections

Approximately 20% of inspections completed by the Development Services Department fail on the first attempt. Below is a listing of the most common turndowns for each trade on commercial and residential inspections.

#### **Common Turn-Downs for all Trades**

- 1. No plans at job site (UPC Sec. 103.3.2; 97UBC Sec. 106.4.2; UMC Sec. 113.2)
- 2. No visible address, suite or building number (97UBC Sec. 502)
- 3. Work without permit (UPC Sec. 103.1.1; 97UBC Sec. 106.1; UMC Sec. 112.1)
- 4. No easy access to that which is being inspected, i.e. no ladder on site (97UBC Sec. 108.1; UMC Sec. 116.4)
- 5. Jobs called in before work is ready for inspection (UPC Sec. 103.5.4.2; 97UBC Sec. 108.8; UMC 116.1)
- 6. Work covered prior to inspection (UPC Sec. 103.5.1.4; 97UBC 108.5.1; UMC Sec. 116.1)

#### **Common Electrical Turndowns**

## Based on the 2002 National Electric Code and/or the Chapter 10 Electrical Code

- 1. Boxes and wiring systems not properly supported (NEC Sec. 300.11, Ch. 10 Sec. 10-144)
- 2. Overfilled boxes and conduits (NEC Sec. 314.16)
- 3. Improperly sized breakers for A/C and heating equipment (NEC Sec. 440.22)

#### Residential:

- 1. Improper spacing of outlets (NEC Sec. 210.52)
- 2. Minimum distances for closet lights from storage shelves not met (NEC Sec. 410.8 (d))
- 3. Nail plate protection for cables within 1½ in. of framing member edge not met (NEC Sec. 300.4 a(1))
- 4. Boxes recessed too far in walls (NEC Sec. 314.20)
- 5. Access door for hydromassage bathtub motors not completed (NEC Sec. 680.73)

#### Commercial:

- 1. Working clearance requirements at panels and other electrical equipment not met (NEC Sec. 110.26)
- 2. Grounding not complete at service (NEC Sec. 250.50)
- 3. Metal boxes improperly bonded (NEC Sec. 314.4 & 250.148)
- 4. Incorrect size of equipment grounds (NEC Sec. 250.122)

## **Common Plumbing Turn-Downs**

#### **Based on the 2003 Uniform Plumbing Code**

- 1. Gas gauge indicating leak (Sec. 1214.4.5)
- 2. Inadequate strapping or securing of piping (Table 3-2)
- 3. Improper grade on drain piping (Sec. 708)

#### Residential:

- 1. Improper grade on drain piping (Sec. 708)
- 2. Incorrect use of drainage and vent fillings (Sec. 706)
- 3. Water heater vent terminating too close to a window, soffit vent or other location (Sec. 510.6.2)
- 4. Water service or water distribution lines undersized (Tables 6-4 & 6-5)
- 5. Properly insulate water pipes (Sec. 313.6)

#### Commercial:

- 1. Improper use of drainage and vent fittings (Sec. 706)
- 2. Inadequate strapping or securing of piping (Table 3-2)
- 3. Trap primers missing (Sec. 1007)

# **Common Building Turn-Downs**

#### **Based on the 2000 International Residential Code**

- 1. Door landings required (Sec. R312)
- 2. Hand/guard rails required (Sec. R315 & R316)

#### Residential:

- 1. Smoke detectors required (Sec. R317)
- 2. Studs over bored (Sec. R602.6)
- 3. Foundation bolts required (Sec. R403.1.6)
- 4. Weep Holes required (Sec. R703.7.6)
- 5. Purlins and struts required or improperly sized (Sec. R802.5.1)
- 6. Fire blocking required (Sec. R602.8)
- 7. Incorrect rise and run on stairs (Sec. R314)

## Based on the 1997 Uniform Building Code

#### Commercial:

- 1. Exit signs not provided when required (Sec. 1003.2.8)
- 2. Panic hardware not provided when required (Sec. 1007)
- 3. Rated corridors (Sec. 1004.3.4)
- 4. Door swing (Sec. 1003.3.1.5)
- 5. Required number of exits not provided (Sec. 10-A)
- 6. Restroom vents (Sec. 1202.2)

#### **Common Mechanical Turn-Downs**

#### Based on the 1997 Uniform Mechanical Code

- 1. Equipment not properly strapped, supported or installed (Sec. 308)
- 2. Improper electrical connections (Sec. 306)
- 3. Duct work covered prior to inspection (Sec. 116.4)
- 4. Improper locations of drain lines (Sec. 1105.10)
- 5. Improper working clearance and access (Sec. 307)

#### Residential:

- 1. Improper combustion air ducts (Sec. 702)
- 2. Low voltage wire not in approved conduit (Sec. 306.1)
- 3. Attic furnaces not having proper clearance or accessibility (Sec. 307.3)
- 4. Venting system not having proper clearance or rise (Chapter 8)
- 5. Condensing unit slab not extending to at least 3" above adjoining ground level (Sec. 1105.2.1)
- 6. No approved gas shutoff valve (Sec. 305)

## Commercial:

1. Fire dampers not installed per manufacturer's installation instructions (Sec. 509.8)

## Fire Inspections

- 1. Access Roads and Water Supply not established nor maintained for new construction. UFC Article 87
- 2. General Contractor calling to set up a test or inspection of the facility or system (ex: Fire Alarm, Ansul System, Sprinkler System, etc.) before the sub-contractor is ready. Fire Alarm system test needs to have the facility clean and dust free before testing.
- 3. Facility needs to be clean and dust free before the fire alarm system can be tested.

- 4. Emergency lights and exit signs are not pre-tested or connected before calling for the final inspection. The emergency lighting installed is not adequate for the facility.
- 5. In larger buildings where smoke control systems are required they are not being pre-tested before calling for inspection and testing. UBC Section 905.
- 6. Address not posted. Required to be in a permanent location for the final inspection. UFC Section 901.4.4
- 7. Lack of Fire Stopping where fire rated walls are penetrated by piping, building wiring, or damaged. UBC Section 703 and UFC Section 1111.
- 8. Unapproved security locks being installed on exit doors. Not being shown on plans or discussed with Fire Engineers. UBC 1003.3.1.10
- Existing fire systems (Fire Alarms, Sprinklers, Fixed Pipes, etc.) on existing buildings being renovated are not being maintained in accordance with the Fire Code. UFC Section 1001.5.1

## Construction Inspections

- Traffic Inspections
- 1. City approved, building permitted plans must be on site. If building is a change of use, plans must be reviewed by traffic engineering.
- 2. Parking spaces, handicap spaces, van access space with required signs, must be striped on either concrete or asphalt material.
- 3. Existing curbs, sidewalks and approaches must meet current ADA and UDC standards. New site work construction must meet same criteria.
- 4. Pedestrian access from a public sidewalk to a building must meet ADA standards. If the route is greater than 5% slope for a distance longer than 6 linear feet, then hand railing is required on both sides.
- 5. If a detention pond is required, it must be complete. Drainage easements or ROW's must be checked to make sure that construction spoils are removed and open earth channel side slopes regraded. If upgrading is required then Development Services Construction Inspector needs to inspect such improvements.
- 6. When traffic signals are involved, Public Works Operations must be contacted to inspect the condition of traffic loops and pull boxes. If damaged, the contractor must repair installation to traffic operations satisfaction.
- 7. All spoils material must be removed from adjoining properties and no sheet flowing of water is allowed onto adjoining property.

- 8. When joint vehicular access is required, Development Services Construction Inspector must review the cross access agreement.
- 9. When construction of public sidewalks is necessary on private property, Development Services Construction Inspector must review completed pedestrian easement dedication.
- 10. Staining of all handicap ramps and repair of damaged asphalt must be completed for final acceptance.

## **Commercial:**

- 1. No City approved, building permitted plans on site.
- 2. Existing curbs, sidewalks and approaches (if they remain) must meet current ADA and UDC standards before pouring new approaches.
- 3. The forms must not touch the base and must be cut to grade. Breaking point and flares must be to grade and alignment. ½-in. to 1-in. low curb forms for approaches handicapped ramps must be flush with asphalt.
- 4. Grade pins at sidewalk sections must be to grade. Also at handicap ramps, if necessary (incorrect curb transitions).
- 5. Reinforcement must meet city specifications, no roll wire in sidewalks is allowed.
- 6. When property is draining onto street from the project the construction of sidewalk box drains or elevated sidewalk is required. Draining of surface runoff water over sidewalks is not allowed.
- 7. Parkways must not exceed a maximum 4:1 slope, if greater then retaining walls are required.
- 8. Concrete thickness must comply with City specifications, which require 4-in. for sidewalk and 6-in. for drive approaches with 3000 PSI, Class A concrete.
- 9. When traffic signals are present, inspector will ensure that all pull boxes are to grade and have a 4-in. thick, 6-in. wide collar around the pull box. If it is not poured in the sidewalk, 6" block-outs around utilities are required.
- 10. Dowels must be a minimum of 18-in. long 9-in. into existing concrete with expansion material and 9-in. into proposed concrete. Expansion material must comply with City of San Antonio Specifications. If using rebar as dowels, one side must be greased and the other side tied to the reinforcement. Dowels are to be spaced maximum 18-in. centers, each way.

# COMMON REASONS FOR DELAYS IN THE DEVELOPMENT PROCESS Residential:

- 1. Approach and sidewalk forms must not touch bedding material (2-in. of base or gravel required). Forms must be cut to grade with 2-ft. minimum flares and ½-in. or 1-in. forms required for low curbs at approaches.
- 2. Reinforcement must comply with City Specifications. No roll wire in sidewalks is allowed.
- 3. Grade pins set incorrectly. They must be to grade at the sidewalk section that runs through the approach at back of sidewalk. If sidewalk is away from the curb, grade pins must be set at front and back of sidewalk.
- 4. When a new house is built in an old neighborhood with existing curbs, sidewalks or approaches present, they must comply with current ADA and UDC standards. When no curbs are present, a civil engineer must draft a plan/profile that is submitted to traffic engineering for review.
- 5. Forming of an approach too wide: 20-ft. maximum at property line with 2-ft. minimum flares. Forming of a narrow approach: 10-ft. minimum at property line with 2-ft. minimum flares and or not having flares encroach on neighbor's property. Development Services Traffic Engineering must approve construction of a horseshoe driveway.
- 6. Concrete depth must comply with City Specifications, which require 4-in. for sidewalk and 5-in. for drive approaches with 3000 PSI, Class A concrete.
- 7. Dowels must be a minimum of 18-in. long 9-in. into existing concrete with expansion material and 9-in. into proposed concrete. Expansion material must comply with City of San Antonio Specifications. If using rebar as dowels, one side must be greased and the other side tied to the reinforcement. Dowels are to be spaced maximum 18" centers, each way.
- 8. Curb transitions at approaches and handicap ramps must meet current City flatwork handbook specifications.
- 9. When a new house is built on a corner lot, sidewalk construction must be from property line to property line. Construction around the corner with construction of one or two handicap ramps is required.
- **10.** When reconstructing an approach or constructing a new approach at an existing house on a corner lot, the construction of 1 or 2 handicap ramps is required.